# GOVERNMENT OF INDIA
# OCEAN DEVELOPMENT
# LOK SABHA

UNSTARRED QUESTION NO:1199
ANSWERED ON:26.11.2002
INDIAN OCEAN EXPERIMENT ON HAZE OVER ASIA
SURESH KURUP

**Will the Minister of OCEAN DEVELOPMENT be pleased to state:**

(a) whether any study has been conducted under a project called `The Indian Ocean Experiment` (INOE) in 1996 on the reported haze hanging over Asia;

(b) if so, the details thereof;

(c) whether the haze has any affect on human health, crop-yields and rainfall patterns in the Asian region; and

(d) if so, the details thereof ?

## Answer

MINISTER OF HUMAN RESOURCE DEVELOPMENT, MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF DEVELOPMENT ( DR. MURLI MANOHAR JOSHI )

a) & b) Yes Sir. `The Indian Ocean Experiment` (INOE) has been conducted during 1996 to 1999 with an intensive fields phase in January to March, 1999. It was participated by more than 200 scientists representing India, Europe and USA.Preliminary results indicated the presence of a prownish haze extending from the ocean surface to 1-3 km altitude. The haze consists of combination of water droplets and minute particles. The particles are generated naturally (sea salt, dust) and through anthropogenic activity (sulphide or soot). One of the major findings of the experiment is that the majority of the minute particle (around 75%) in the haze was of anthropogenic activities like burning fossil fuels, emission from vehicles, etc. The haze is a temporary phenomena and occurs only in winter i.e., January to March. The haze is not restricted to Asia.

(a) & (d) The data collected during INOE is for short duration and the observation made is preliminary.With this limited data, definite conclusion cannot be drawn on the adverse impacts of the haze, on rainfall, crops yields and human health.